away from forest, but no mention is made as to the altitude this bird goes up to. In early March of this year I had the good fortune of observing a single pair of these birds on the Tableland at Panchgani, the altitude of which is This pair remained on the Tableland for two days and were never seen again after that. I have been observing animal life in Panchgani for three years but never came across these birds before at any season.

It would be interesting to know how high these birds go in other localities.

BOMBAY NATURAL HISTORY SOCIETY, 6 APOLLO STREET, September 3, 1926.

C. McCANN.

No. XIV.—NOTE ON THE BREEDING OF THE GENUS CAPRIMULGUS (NIGHTIARS) IN THE PUNIAB SALT RANGE

(With a Plate)

A few years ago Mr. Hugh Whistler drew attention to our lack of knowledge of the Nightjars of the Punjab (Jour., B.N. H.S., vol. xxvii, p. 363) and in response to his appeal for further information I venture to place on record what I have so far observed of the breeding of these birds in the Salt Range.

The species met with in the Range are C. mahrattensis, C. monticolus, and

C. europæus unwini, and all three of them breed there.

Sykes' Nightjar, Caprimulgus mahrattensis.

This species is apparently confined to the broken ground along the southern base of the Range, and I have never found it, nor its eggs, in the hills. The country is mostly stony waste, diversified with occasional stretches of hard, bare soil and a succession of boulder-strewn, torrent beds, most of them dry, but some with a small stream of brackish water. The vegetation consists chiefly of stunted 'Jahl' trees (Salvadora oleolides) and 'Kari' bushes (Capparis aphylla), and an abundance of small, bushy, plants, of which those known locally as 'Vena' (Rhazya) and 'Harmal' (Peganum harmala) are the most common. The birds spend the day in the shade of the larger trees and bushes and sally forth at dusk after the manner of their kind. I am not acquainted

with their call, but when flushed during the day they utter a low chuckle.

The eggs are usually laid on stony ground at the foot of a small plant, and one clutch, from which the sitting bird was flushed, actually had a sharp-edged stone jutting up between them. These eggs were on the point of hatching, and the bird, having settled a short distance away, threw itself about and fluttered its wings much in the manner of Glareola lactea in like circumstances.

The usual time for eggs is March and Apirl, the earliest date on which I have secured them then being March 17, and the latest April 26, but this bird apparently breeds also at other seasons for I have one clutch to the seasons.

bird apparently breeds also at other seasons, for I have one clutch taken on the same ground on July 26.

Franklin's Nightjar, Caprimulgus monticolus.

This species frequents stony hills lying between two and three thousand feet, from which small ravines, well covered with 'Phulah' (Acacia modesta) and wild olive trees and bushes of various kinds, lead down into cultivated valleys. The hills themselves are bare, except for a small, thick-set, and thorny bush called 'Kander' (Gymnosporia royleana). The birds spend the day in the shade of the ravines and are on the wing as soon as it begins to get dark. The call, with which I am well acquainted, is, as noted by Mr. Osmaston (Jour., B. N. H. S., vol. xxvii, p. 949) a sharp and penetrating 'choo-ee'. It is uttered both on the wing and from the ground, and sometimes from the top of a bush. It can be heard continuously all night long in June when the birds are pairing, and becomes less frequent as the scason advances. It is sometimes uttered in daylight, and I have located a bird at the beginning of July by hearing its call as late as 7.0 a.m. Like *C. mahrattensis* it often gives a low chuckle when flushed during the day. On three successive nights in June a pair of these birds was watched drinking at a small pond. They appeared regularly at dusk, calling repeatedly as they came, and flew over the water, dipping down to it after the manner of swallows.

The eggs are laid on stony ground, dotted with small bushes, in close proximity to a ravine, into which the sitting bird flies when disturbed. The place selected seems invariably to be in the neighbourhood of cultivation. The eggs rest on bare ground amongst the stones, at the foot of, or fairly close to, a small bush or plant. When the hen is sitting her mate will usually be found in the shade of a ravine nearby. During the nesting season I have several times flushed as many as four male birds from one small ravine.

Eggs are to be found in June and July. The earliest date on which I have taken them is June 25, and the latest July 18, but I have seen a young bird with quills sprouting as early as June 23. The young apparently do not always remain in the same place, but move, or are moved by their parents, short distances of a yard or two from time to time. On one occasion a bird sitting beside a nestling slunk off at my approach and squatted amongst the stones a

short distance away.

Two clutches of eggs almost certainly of this species, together with a clutch of *C. euroæus unwini*, were brought to me on July 6, by a villager who said that he had found them all on the 3rd near a village at the foot of the hills, i.e., on the ground where *C. mahrattensis* breeds earlier in the year, but I have no personal knowledge of the nesting in that locality of any but the last named.

There seems to be an autumn passage of these birds across the Range, as in certain localities the villagers state that they appear in large numbers in the latter half of July and August. Two birds shot in the middle of July by a Forest Guard, who probably 'browned' a party, were found to be of this species and heavy in moult. I was told of a similar passage of nightjars at this season in the neighbouring District of Rawalpindi, where they then become a quarry for the hawks of the local gentry, and was shown some of this species which had been taken thus on July 22. I was also informed that a smaller kind, presumably C. curopæus unwini, appeared a little later and afforded better sport.

Hume's Nightjar, Caprimulgus europæus unwini.

This species breeds on the same ground as *C. monticolus* and its 'nest' may sometimes be found at no great distance from one of the latter. In general, however, it seems to prefer more cover, being often found on hills thickly clothed with 'Santha' (*Dodonœa viscosa*) and other bushes. This brings it more in the track of the village goat-herd and is doubtless the reason why its eggs are far more frequently discovered. Its habits are similar to those of *C. monticolus* and it also gives a low chuckle when flushed during the day. As regards the call I can say nothing definite. According to the 'Fauna' it is a whirring sound, and I have on one or two occasions heard such a sound on ground frequented by this bird. On the other hand I have several times had cause to suspect that it makes use of a note like that of *C. monticolus*. The breeding season is June and July, and nearly all the eggs in my possession have been taken during the month following June 10. I have found young in down, with the parent bird sitting beside them, on June 23, and have had half-grown young brought to me on June 26. The down of the young in this species is grey; in *C. monticolus* it is pinkish brown. The eggs are nearly always laid under the shelter of a bush, often one of fair size, and may sometimes be found on the steep and rocky side of a ravine. The foot of a 'Santha' bush is a site often selected. In one such case a bird was flushed from an egg lying on a flat stone underneath the bush. The ground all round was littered with dry 'Santha' leaves and the bird had apparently cleared the stone of them before laying her egg on it.

egg on it.

The Salt Range name for Nightjars of all kinds is *Chapáki*; in the neighbouring Rawalpindi District they are called *Paták*. The villagers believe that if one of these birds touches or flies over a cow or a goat the animal's milk dries up and its udder swells. The remedy is for a man who has killed a nightjar to spread his *Chadar* (loin-cloth) over the afflicted beast, which is

thereby cured.

Phillaur, Punjab, August 7, 1926. H. W. WAITE, F.Z.S., M.B.O.U.,

Indian Police.